



STIC Search Report

EIC 3600

STIC Database Tracking Number: 163670

TO: Naeem Haq
Location: KNOX 5C04
Art Unit : 3625
Thursday, August 25, 2005

Case Serial Number: 09/838970

From: Sylvia Keys
Location: EIC 3600
Knox 4B68
Phone: 571.272.3534

sylvia.keys@uspto.gov

Search Notes

Dear Examiner Haq,

Please read through the results.

If you have any questions, please do not hesitate to contact me.

Sylvia



STIC Search Results Feedback Form

EIC 3600

Questions about the scope or the results of the search? Contact *the EIC searcher* or contact:

Karen Lehman, EIC 3600 Team Leader
571.272.3496 Knox suite 4B68

Voluntary Results Feedback Form

➤ I am an examiner in Workgroup: Example: 3620 (optional)

➤ Relevant prior art **found**, search results used as follows:

- ☐ 102 rejection
- ☐ 103 rejection
- ☐ Cited as being of interest.
- ☐ Helped examiner better understand the invention.
- ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature
(journal articles, conference proceedings, new product announcements etc.)

➤ Relevant prior art **not found**:

- ☐ Results verified the lack of relevant prior art (helped determine patentability).
- ☐ Results were not useful in determining patentability or understanding the invention.

Comments:

Drop off or send completed forms to EIC3600 Knox suite 4B68



705/26 (93)

Access DB#

163670

SEARCH REQUEST FORM**Scientific and Technical Information Center**

Requester's Full Name: Naeem Haq Examiner #: 78786 Date: 8/24/2005
 Art Unit: 3625 Phone Number 571-272-6758 Serial Number: 09/838,970
 Mail Box Location: KNX-5C04 Results Format Preferred (circle): **PAPER** ~~DISK~~ ~~E-MAIL~~

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: SYSTEM AND METHOD FOR MANAGING WELDING CONSUMABLES

Inventors (please provide full names): George Daryl Blankenship; Christopher Hsu

Earliest Priority Filing Date: April 20, 2001

**For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

BACKGROUND OF INVENTION

The invention is directed to a system and method for managing welding consumables. The system and method comprise a "welder" having a consumable monitor. A "welder" is defined by the specification as physical hardware for producing a weld such as wire feeder, welding gun, or robot arm (see specification page 5, line 28 – page 6, line 7 for more terms). The consumable monitor monitors the status of consumables (e.g. wire, electrode, gas, flux, etc.) being used by the welder. When the consumable monitor detects that one or more of the consumable is running low, the monitor send a signal to a remote or local system via network. Once the remote or local system receives the signal it then places an order for the consumable. I found a lot of prior art for printer consumables (e.g. toner, paper, ink, etc.) that use the same concept. However, I need something similar for welders.

Please provide an NPL search for claims 1, 21, 45, and 49, and an inventor search. All references must be before the priority date as shown above.

STAFF USE ONLY**Type of Search****Vendors and cost where applicable**

Searcher: _____	NA Sequence (#) _____	STN _____
Searcher Phone #: _____	AA Sequence (#) _____	Dialog _____
Searcher Location: _____	Structure (#) _____	Questel/Orbit _____
Date Searcher Picked Up: _____	Bibliographic _____	Dr.Link _____
Date Completed: _____	Litigation _____	Lexis/Nexis _____
Searcher Prep & Review Time: _____	Fulltext _____	Sequence Systems _____
Clerical Prep Time: _____	Patent Family _____	WWW/Internet _____
Online Time: _____	Other _____	Other (specify) _____

File 16:Gale Group PROMT(R) 1990-2005/Aug 25
 (c) 2005 The Gale Group
 File 148:Gale Group Trade & Industry DB 1976-2005/Aug 25
 (c)2005 The Gale Group
 File 160:Gale Group PROMT(R) 1972-1989
 (c) 1999 The Gale Group
 File 275:Gale Group Computer DB(TM) 1983-2005/Aug 25
 (c) 2005 The Gale Group
 File 621:Gale Group New Prod.Annou.(R) 1985-2005/Aug 25
 (c) 2005 The Gale Group
 File 636:Gale Group Newsletter DB(TM) 1987-2005/Aug 25
 (c) 2005 The Gale Group
 File 9:Business & Industry(R) Jul/1994-2005/Aug 24
 (c) 2005 The Gale Group
 File 15:ABI/Inform(R) 1971-2005/Aug 24
 (c) 2005 ProQuest Info&Learning
 File 20:Dialog Global Reporter 1997-2005/Aug 25
 (c) 2005 Dialog
 File 95:TEME-Technology & Management 1989-2005/Jul W3
 (c) 2005 FIZ TECHNIK
 File 476:Financial Times Fulltext 1982-2005/Aug 25
 (c) 2005 Financial Times Ltd
 File 610:Business Wire 1999-2005/Aug 25
 (c) 2005 Business Wire.
 File 613:PR Newswire 1999-2005/Aug 25
 (c) 2005 PR Newswire Association Inc
 File 624:McGraw-Hill Publications 1985-2005/Aug 24
 (c) 2005 McGraw-Hill Co. Inc
 File 634:San Jose Mercury Jun 1985-2005/Aug 24
 (c) 2005 San Jose Mercury News
 File 810:Business Wire 1986-1999/Feb 28
 (c) 1999 Business Wire
 File 813:PR Newswire 1987-1999/Apr 30
 (c) 1999 PR Newswire Association Inc
 File 635:Business Dateline(R) 1985-2005/Aug 24
 (c) 2005 ProQuest Info&Learning
 File 570:Gale Group MARS(R) 1984-2005/Aug 25
 (c) 2005 The Gale Group
 File 477:Irish Times 1999-2005/Aug 24
 (c) 2005 Irish Times
 File 710:Times/Sun.Times(London) Jun 1988-2005/Aug 24
 (c) 2005 Times Newspapers
 File 711:Independent(London) Sep 1988-2005/Aug 24
 (c) 2005 Newspaper Publ. PLC
 File 756:Daily/Sunday Telegraph 2000-2005/Aug 25
 (c) 2005 Telegraph Group
 File 757:Mirror Publications/Independent Newspapers 2000-2005/Aug 25
 (c) 2005
 File 387:The Denver Post 1994-2005/Aug 24
 (c) 2005 Denver Post
 File 471:New York Times Fulltext 1980-2005/Aug 25
 (c) 2005 The New York Times
 File 492:Arizona Repub/Phoenix Gaz 19862002/Jan 06
 (c) 2002 Phoenix Newspapers
 File 494:St LouisPost-Dispatch 1988-2005/Aug 22
 (c) 2005 St Louis Post-Dispatch
 File 498:Detroit Free Press 1987-2005/Aug 24
 (c) 2005 Detroit Free Press Inc.
 File 631:Boston Globe 1980-2005/Aug 24
 (c) 2005 Boston Globe
 File 633:Phil.Inquirer 1983-2005/Aug 24

(c) 2005 Philadelphia Newspapers Inc
 File 638:Newsday/New York Newsday 1987-2005/Aug 22
 (c) 2005 Newsday Inc.
 File 640:San Francisco Chronicle 1988-2005/Aug 25
 (c) 2005 Chronicle Publ. Co.
 File 641:Rocky Mountain News Jun 1989-2005/Aug 25
 (c) 2005 Scripps Howard News
 File 702:Miami Herald 1983-2005/Aug 21
 (c) 2005 The Miami Herald Publishing Co.
 File 703:USA Today 1989-2005/Aug 24
 (c) 2005 USA Today
 File 704:(Portland)The Oregonian 1989-2005/Aug 23
 (c) 2005 The Oregonian
 File 713:Atlanta J/Const. 1989-2005/Aug 25
 (c) 2005 Atlanta Newspapers
 File 714:(Baltimore) The Sun 1990-2005/Aug 24
 (c) 2005 Baltimore Sun
 File 715:Christian Sci.Mon. 1989-2005/Aug 25
 (c) 2005 Christian Science Monitor
 File 725:(Cleveland)Plain Dealer Aug 1991-2005/Aug 24
 (c) 2005 The Plain Dealer
 File 735:St. Petersburg Times 1989- 2005/Aug 24
 (c) 2005 St. Petersburg Times

Set	Items	Description
S1	1445	WELD?(3N)CONSUMABLE?
S2	19650	WELD?(3N)EQUIPMENT?
S3	4	FUSION?(3N)CONSUMABLE
S4	216967	(COMPUTER? OR AUTOMATE? OR ELECTRONIC?) (5N) (MONITOR? OR A- SSESS? OR TRACK? OR DETECT?)
S5	529	AU=(BLANKENSHIP, G? OR BLANDENSHIP G? OR HSU, C? OR HSU C?)
S6	1	S1(S)S4
S7	33	(S2 OR S3) (S)S4
S8	32	S7 NOT S6
S9	22	S8 NOT PY>2001
S10	19	RD (unique items)
S11	0	S5(S)S1
S12	529	AU=(BLANKENSHIP, G? OR BLANKENSHIP G? OR HSU, C? OR HSU C?)
S13	0	S12(S)S1
? LOGOFF HOLD		

6/5/1 (Item 1 from file: 2)
DIALOG(R)File 2:INSPEC
(c) 2005 Institution of Electrical Engineers. All rts. reserv.

02037056 INSPEC Abstract Number: B83028799

Title: Modern power sources score in non-ferrous welding

Author(s): Heath, D.J.

Author Affiliation: Inco Alloy Products Ltd., Birmingham, UK

Journal: Welding and Metal Fabrication p.374-8

Publication Date: Oct. 1982 Country of Publication: UK

CODEN: WLMFAM ISSN: 0043-2245

Language: English Document Type: Journal Paper (JP)

Treatment: Applications (A)

Abstract: Three commercially-available **electronically** -controlled power sources were **assessed** in conjunction with various non-ferrous **welding consumables** . The aim of the exercise was to overcome problems previously encountered with conventional units. (0 Refs)

Subfile: B

Descriptors: arc welding; power supplies to apparatus

Identifiers: nonferrous welding; power sources

Class Codes: B8360 (Power convertors and power supplies to apparatus);

B8620 (Manufacturing industries)

10/3,K/1 (Item 1 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
(c) 2005 The Gale Group. All rts. reserv.

07592632 Supplier Number: 63565224 (USE FORMAT 7 FOR FULLTEXT)
24th Annual Source Guide. (Brief Article)
Automotive Industries, v180, n6, p107
June, 2000
Language: English Record Type: Fulltext
Article Type: Brief Article
Document Type: Magazine/Journal; Trade
Word Count: 114703

... Board Radar
Systems, Printed Circuit Boards, Relays & Regulators,
Solenoids, Switches, Fuses, & Circuit Breakers

AROMAT CORE, **ELECTRONIC** COMPONENT DIV.
629 Central Ave.
New Providence, NJ 07974
Karen Stanley, V.P. of Sales...Commercial Manager - N.A.
Assembly Systems, Connectors, Conveyors, Cranes,
Hoists, Machine Tools, Material Handling Equipt, **Welding**
Equipment

CRS REGISTRARS INC.
5515 Southwyck Blvd., Sts. 205
Toledo, OH 43614
Tom Springstead, Autom. Indust...

10/3,K/2 (Item 2 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
(c) 2005 The Gale Group. All rts. reserv.

07054045 Supplier Number: 58435645 (USE FORMAT 7 FOR FULLTEXT)
Welding manufacturer smashes China.
Welding Review International, v16, n3, p4
August, 1997
Language: English Record Type: Fulltext
Document Type: Magazine/Journal; Trade
Word Count: 76

(USE FORMAT 7 FOR FULLTEXT)
TEXT:
Resistance **welding equipment** manufacturer, British Federal, has opened
a sales office in Beijing to further sales of its **equipment** and
electronic weld control and **monitoring** systems to the automotive, drum
packaging and aerospace industries.

10/3,K/3 (Item 3 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
(c) 2005 The Gale Group. All rts. reserv.

03161502 Supplier Number: 44318967
Import, Export Trends
Japan Electronics Almanac, p207
Annual, 1994
Language: English Record Type: Abstract

Document Type: Magazine/Journal; Trade

ABSTRACT:

...and imports. The leading export products among non-medical electronics equipment consisted of diffraction equipment, **electronic** microscopes, and ultrasonic fish **detectors**. Imports primarily included ultrasonic **welding equipment**, electronic microscopes, and radiation equipment.

...

10/3,K/4 (Item 4 from file: 16)

DIALOG(R)File 16:Gale Group PROMT(R)

(c) 2005 The Gale Group. All rts. reserv.

03161487 Supplier Number: 44318952

ELECTRONICS-APPLIED EQUIPMENT: Import, Export Trends

Japan Electronics Almanac, p207

Annual, 1994

Language: English Record Type: Abstract

Document Type: Magazine/Journal; Trade

ABSTRACT:

...exports and 88.4% in its total imports. Major imported products include electronic microscopes, ultrasonic **welding** and radiation **equipment**. Its chief exported non-medical products include **electronic** microscopes, ultrasonic fish **detectors** and diffraction equipment.

10/3,K/5 (Item 5 from file: 16)

DIALOG(R)File 16:Gale Group PROMT(R)

(c) 2005 The Gale Group. All rts. reserv.

02833047 Supplier Number: 43809579 (USE FORMAT 7 FOR FULLTEXT)

Advanced technology a means to an end at Migatronix

Welding Review International, p53

May, 1993

Language: English Record Type: Fulltext

Document Type: Magazine/Journal; Trade

Word Count: 2221

... cutting processes are manufactured at the plant. In addition to these it builds tractors, turntables, **welders** ' lathes, fume extraction **equipment** and arc **monitoring** and other **electronic** QC welding ancillaries.

The company's current flagship power source for the shipbuilding industry is...

10/3,K/6 (Item 6 from file: 16)

DIALOG(R)File 16:Gale Group PROMT(R)

(c) 2005 The Gale Group. All rts. reserv.

01152540 Supplier Number: 41309409 (USE FORMAT 7 FOR FULLTEXT)

Richard Lind,

Metal Center News, p74

May, 1990

Language: English Record Type: Fulltext

Document Type: Magazine/Journal; Trade

Word Count: 349

... through innovative production methods. Bull Moose has introduced computer-integrated manufacturing (CIM), which is an **automated** system allowing us to **monitor** , record, and track tolerances and inventory on the shop floor. CIM has created a paperless...

...being implemented in 1990-91. Major capital expenditures, including automatic packaging tables, new mill-entry **equipment** , and **welder** upgrades are under way at Bull Moose to ensure our role as a dependable, flexible...

10/3,K/7 (Item 1 from file: 148)

DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2005 The Gale Group. All rts. reserv.

12897997 SUPPLIER NUMBER: 67682585 (USE FORMAT 7 OR 9 FOR FULL TEXT)

Tube spotting. (Brief Article)

Metalworking Production, 144, 13, 68

Nov, 2000

DOCUMENT TYPE: Brief Article ISSN: 0026-1033 LANGUAGE: English

RECORD TYPE: Fulltext

WORD COUNT: 189 LINE COUNT: 00018

TEXT:

...production lines at the Sosta stainless steel pipemaking factory in Berlin are monitored by automated **weld** positioning **equipment** from Meta Vision Systems. Based on non-contact laser seam tracking the equipment has reduced...

10/3,K/8 (Item 2 from file: 148)

DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2005 The Gale Group. All rts. reserv.

10309781 SUPPLIER NUMBER: 20846029 (USE FORMAT 7 OR 9 FOR FULL TEXT)

Automotive Industries 23rd annual source guide. (1998 Source Guide) (Buyers Guide)

Automotive Industries, v178, n6, p93(24)

June, 1998

DOCUMENT TYPE: Buyers Guide ISSN: 0273-656X LANGUAGE: English

RECORD TYPE: Fulltext; Abstract

WORD COUNT: 32740 LINE COUNT: 08498

... Group

Wells Mfg. Corporation

SOLENOIDS

Aisin World Corporation of America, Detroit

Office

American Electronic Components, Inc .

AMTEC Precision Products Inc.

Applied Power Inc., Apitech/Power-Packer Eng.

Solutions NA

Applied Power...www.lasag.com

Welding Equipment

LASER MACHINING, INC.

500 Laser Dr.

Somerset, WI 54025

David Henning , Sales

715-247-3285

Toll free: 800-77-LASER

Fax: 715-247-5650
E-mail: sales...

...www.lasermachining.com
Welding Equipment, Contract Manufacturing &
Assembly, Engineering Design & Prototyping,
Development & Testing
LDM TECHNOLOGIES, INC .
2500 Executive Hills Dr.
Auburn Hills, MI 48326
Bill Kessler, Sr. V.P. New Bus. Dev...

10/3,K/9 (Item 3 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2005 The Gale Group. All rts. reserv.

08124425 SUPPLIER NUMBER: 17389671 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Plastics technology: manufacturing handbook & buyers' guide 1995/96. (Buyers Guide)
Plastics Technology, v41, n8, pCOV(941)
August, 1995
DOCUMENT TYPE: Buyers Guide ISSN: 0032-1257 LANGUAGE: English
RECORD TYPE: Fulltext
WORD COUNT: 174436 LINE COUNT: 15187

... style, nozzle-type and compression-fitting versions for attachment to injection and extrusion machines.
ADVANTAGE **ELECTRONICS** , INC.
Custom temperature **monitoring** and control instruments with custom packaging, control sequencing, and data-communication capability.
AGEMA INFRARED SYSTEMS...

10/3,K/10 (Item 4 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2005 The Gale Group. All rts. reserv.

07901136 SUPPLIER NUMBER: 16914645 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Change requires a leap of faith. Technological change demands a quantum leap. (challenges in automating warehousing operations)
Andel, Tom
Transportation & Distribution, v36, n5, p112(1)
May, 1995
ISSN: 0895-8548 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT; ABSTRACT
WORD COUNT: 698 LINE COUNT: 00057

... equipment manufacturer to replace 36 warehouses with six distribution centers--with the help of a **computerized** inventory **tracking** system and automatic identification. Corporate headquarters had failed in previous commitments they had made, so...

10/3,K/11 (Item 5 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2005 The Gale Group. All rts. reserv.

06496123 SUPPLIER NUMBER: 14107736 (USE FORMAT 7 OR 9 FOR FULL TEXT)
WIC maintains commitment to research. (What's New in Welding)
Killing, Andy

Canadian Machinery and Metalworking, v88, n3, pS1(1)
April, 1993

ISSN: 0008-4379 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT
WORD COUNT: 694 LINE COUNT: 00055

... dc resistance welding machines, as well as a tip-life testing
system and electronic monitoring **equipment** .

Weldability : The WIC Arc Physics Lab has completed its first major
assignment: determining the effect of...

10/3,K/12 (Item 6 from file: 148)

DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2005 The Gale Group. All rts. reserv.

06219806 SUPPLIER NUMBER: 13277508 (USE FORMAT 7 OR 9 FOR FULL TEXT)

U.S. mergers and acquisitions. (The M&A Rosters: First Quarter 1992)

Mergers & Acquisitions, 27, n1, 65(69)

July-August, 1992

ISSN: 0026-0010 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT

WORD COUNT: 79730 LINE COUNT: 07395

... and processing equipment, welding guns and accessories, automatic
screw machines, realignment systems, equipment for assembling **electronic**
equipment, and manual **tracking** controls. Dover Industries is a unit of
Dover. A-C Compressor, majority owned by Stonebridge...

10/3,K/13 (Item 7 from file: 148)

DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2005 The Gale Group. All rts. reserv.

05417597 SUPPLIER NUMBER: 11077230 (USE FORMAT 7 OR 9 FOR FULL TEXT)

**Energy environment report; buyers' guide: Canada's comprehensive directory
1991. (directory)**

Oilweek, v42, n22, pS1(24)

July 15, 1991

DOCUMENT TYPE: directory ISSN: 0030-1515 LANGUAGE: ENGLISH

RECORD TYPE: FULLTEXT

WORD COUNT: 15697 LINE COUNT: 01435

... Safety & Environmental

Services Ltd. Teledyne Analytical TSL Environmental Labs Western
Research

Gas Blanketing

Bow Valley **Welding** Supplies

Gas **Detection** Equipment

AGS Environmental & Safety Airwave **Electronics** Ltd. Cantech

Corporation Can-Am Instruments Ltd. Capital Controls Co., Inc. Custom

Environmental Services

Ltd...

10/3,K/14 (Item 8 from file: 148)

DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2005 The Gale Group. All rts. reserv.

01749052 SUPPLIER NUMBER: 02818322 (USE FORMAT 7 OR 9 FOR FULL TEXT)

Cybotech targets aerospace for robot applications.

Ashley, Steven
American Metal Market, v91, p10(1)
June 27, 1983
ISSN: 0002-9998 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT
WORD COUNT: 1231 LINE COUNT: 00096

... movements of robots and parts positioners, arc welding process equipment, adaptive through-the-arc seam **tracking** apparatus, **automated** tooling and the link of the host computer.

In a related development, Cybotech "is ending...

10/3,K/15 (Item 1 from file: 160)
DIALOG(R)File 160:Gale Group PROMT(R)
(c) 1999 The Gale Group. All rts. reserv.

01915135

What electronics are doing for welding

American Machinist & Automated Manufacturing March, 1988 p. 66-71
ISSN: 0886-0335

... programmable mechanical seam tracker; and Ferranti/Sciaky's TouchWeld Plus. The use of electronics for **welding equipment** is discussed and equipment from various vendors, eg, SI Intl's new tube welding control...

... Miller Electric's advanced pulsed-arc welding control, is detailed. The advantages of real-time **electronic monitoring** of the welding process is also discussed. Electronically controlled plasma-arc cutting and the mechanics...

10/3,K/16 (Item 2 from file: 160)
DIALOG(R)File 160:Gale Group PROMT(R)
(c) 1999 The Gale Group. All rts. reserv.

01105467

Tech Update: GM pioneers solid modeling system for programming off-line robots.

AMERICAN METAL MARKET November 12, 1984 p. 91

... by spring-1985, to program robots for parts assembly cells. The cells use automatic clinching, **welding** or mechanical fastening **equipment** to produce body panels, trim panels and other sheet metal components or subassemblies. The RoboTech...

... engineers with a good visualization of a robot work cell and can aid in collision **detection** and **automated** planning for the whole production process.

10/3,K/17 (Item 1 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)
(c) 2005 ProQuest Info&Learning. All rts. reserv.

00856121 95-05513

Good specs = low costs

Deierlein, Bob
Fleet Equipment v20n4 PP: 34-37 Apr 1994
ISSN: 0747-2544 JRNL CODE: FEQ

WORD COUNT: 1094

...ABSTRACT: Flesher, general manager-fleet maintenance for AGA Gas, a leading manufacturer of industrial gases and **welding equipment**, decided to find a better way to make his department more efficient. As the head...

...spec a passenger seat. Flesher is also one of the most vocal proponents of a **computerized** equipment management cost system to **track** such things as vehicle performance, fuel records, tire management, and warranty recoveries. ...

10/3,K/18 (Item 1 from file: 95)
DIALOG(R)File 95:TEME-Technology & Management
(c) 2005 FIZ TECHNIK. All rts. reserv.

00675316 M93038444601

Welding management apparatus

(Steuerungsgeraet zum Schweissen)

Ishizaka, Y

K.K. Meidensha, Tokyo, J

1992

Document type: European patent application Language: English

Record type: Abstract

DESCRIPTORS: DIELECTRIC WELDING; OPTOELECTRONIC SENSORS; METAL STRIP;
PRINTERS; COORDINATE PLOTTERS; HIGH FREQUENCY ENGINEERING; PROCESS
AUTOMATION; PROCESS **MONITORING** ; OPTOELECTRONICS; **WELDING** ; **ELECTRONICS**
; **WELDING EQUIPMENT** ; PROCESS CONTROL; AUTOMATISATION

10/3,K/19 (Item 1 from file: 635)
DIALOG(R)File 635:Business Dateline(R)
(c) 2005 ProQuest Info&Learning. All rts. reserv.

0754644 97-13171

Oil service workers go high-tech

Ragsdale, Rose

Alaska Journal of Commerce (Anchorage, AK, US), V20 N45 p10

PUBL DATE: 961104

WORD COUNT: 869

DATELINE: Anchorage, AK, US, Pacific

TEXT:

...notices and other documents with the computers, they say.

Parker Drilling also is installing an **automated** instrumentation system that **monitors** changes in the well bore and helps the drillers make adjustments as needed and prevent...

...Graff said he is investigating interactive CD-ROM software to assist with the training of **welders**, mechanics, electricians, **equipment** operators and all workers in safety requirements.

"With these programs, the trainee can go at...

File 344:Chinese Patents Abs Aug 1985-2005/May
 (c) 2005 European Patent Office
 File 347:JAPIO Nov 1976-2005/Apr(Updated 050801)
 (c) 2005 JPO & JAPIO
 File 350:Derwent WPIX 1963-2005/UD,UM &UP=200554
 (c) 2005 Thomson Derwent
 File 348:EUROPEAN PATENTS 1978-2005/Aug W02
 (c) 2005 European Patent Office
 File 349:PCT FULLTEXT 1979-2005/UB=20050818,UT=20050811
 (c) 2005 WIPO/Univentio
 File 331:Derwent WPI First View UD=200554
 (c) 2005 Thomson Derwent
 File 371:French Patents 1961-2002/BOPI 200209
 (c) 2002 INPI. All rts. reserv.

Set	Items	Description
S1	2811	WELD?(3N)CONSUMABLE?
S2	7667	WELD?(3N)EQUIPMENT?
S3	23	FUSION?(3N)CONSUMABLE
S4	60918	(COMPUTERI? OR AUTOMATE? OR ELECTRONIC?) (5N) (MONITOR? OR A- SSESS? OR TRACK? OR DETECT?)
S5	1795	AU=(BLANKENSHIP, G? OR BLANDENSHIP G? OR HSU, C? OR HSU C?)
S6	6	S1 AND S4
S7	42	S2 AND S4
S8	1	S7 AND IC=G06F
S9	0	S8 NOT S6
S10	0	S3 AND S4
S11	9	S5 AND S1

6/3,K/1 (Item 1 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
(c) 2005 European Patent Office. All rts. reserv.

01442084

CONTROL METHOD OF ARC WELDING AND ARC WELDER
STEUERVERFAHREN FUR LICHTBOGENSCHWEISSEN IND SCHWEISSBRENNER
PROCEDE DE COMMANDE DE SOUDAGE A L'ARC ET SOUDEUR A L'ARC

PATENT ASSIGNEE:

Honda Giken Kogyo Kabushiki Kaisha, (2060611), 1-1, Minami Aoyama 2-chome
, Minato-ku, Tokyo 107-8556, (JP), (Applicant designated States: all)

INVENTOR:

UEDA, Koji, c/o Honda R & D Co., LTD., 4-1, Chuo 1-chome, Wako-shi,
Saitama 351-0113, (JP)
MURAKAMI, Manabu, c/o Honda R & D Co., LTD., 4-1, Chuo 1-chome, Wako-shi,
Saitama 351-0113, (JP)
YANAGITA, Akira, c/o Honda R & D Co., LTD., 4-1, Chuo 1-chome, Wako-shi,
Saitama 351-0113, (JP)
YAMAGAMI, Takeshi, c/o Honda R & D Co., LTD., 4-1, Chuo 1-chome,
Wako-shi, Saitama 351-0113, (JP)
KUGAI, Katsuya, c/o Daihen Corp., 1-11, Tagawa 2-chome Yodogawa-ku,
Osaka-shi, Osaka 532-8512, (JP)
NIIMURA, Yusuke, c/o Daihen Corp, 1-11, Tagawa 2-chome Yodogawa-ku,
Osaka-shi, Osaka 532-8512, (JP)
IZAWA, Akinobu, c/o Daihen Corp., 1-11, Tagawa 2-chome Yodogawa-ku,
Osaka-shi, Osaka 532-8512, (JP)
CHINEN, Rintaro, c/o Daihen Corp., 1-11, Tagawa 2-chome Yodogawa-ku,
Osaka-shi, Osaka 532-8512, (JP)

LEGAL REPRESENTATIVE:

Prechtel, Jorg, Dipl.-Phys. Dr. et al (47202), Weickmann & Weickmann
Patentanwalte Postfach 86 08 20, 81635 Munchen, (DE)

PATENT (CC, No, Kind, Date): EP 1340576 A1 030903 (Basic)
WO 2002045899 020613

APPLICATION (CC, No, Date): EP 2001999454 011204; WO 2001JP10575 011204

PRIORITY (CC, No, Date): JP 2000373141 001207

DESIGNATED STATES: AT; BE; CH; DE; FR; GB; LI

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: B23K-009/127; B23K-009/12

ABSTRACT WORD COUNT: 106

NOTE:

Figure number on first page: 5

LANGUAGE (Publication,Procedural,Application): English; English; Japanese

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200336	235
SPEC A	(English)	200336	4905
Total word count - document A			5140
Total word count - document B			0
Total word count - documents A + B			5140

...SPECIFICATION proposed, as disclosed in Japanese Patent Laid-Open
Publications Nos. HEI-7-148576 entitled "Non- Consumable Electrode
Automated Arc **Welding** Process" and HEI-10-249526 entitled "TIG Welding
Apparatus for Rotating Body".

The automated arc...control is achieved with high accuracy and
reliability.

The arc welding process is a non- consumable electrode arc welding
process. When used in such a non- consumable electrode arc welding
process which is typified by the TIG (tungsten inert-gas) arc welding,
the present invention...

...be suppressed.

The arc welding process achieved by the arc welding machine is a non-**consumable** electrode arc **welding** process. When the present invention is embodied in such a non-**consumable** electrode arc **welding** process typified by the TIG welding, it is possible to realize welding of very thin...groove) can be found or detected through human eyes of the welding operator. In an **automated** welding process, however, **detection** of such defective groove requires a CCD camera and an image analyzer that are provided...from the arc light", so that the invention can be applied to both the non-**consumable** electrode arc **welding** process (TIG arc welding, atomic-hydrogen arc welding and carbon arc **welding**) and the **consumable** electrode arc **welding** process (MIG arc welding, carbon oxide gas arc welding, electrogas arc welding, shielded arc welding...

...the welding process.

Among others, TIG arc welding, which is a typical of the non-**consumable** electrode arc **welding** process, can perform accurate welding of very thin sheet metals because a good mutual relationship...

...CLAIMS arc welding process according to claim 1, wherein the arc welding process is a non-**consumable** electrode arc **welding** process.

3. The control method for the arc welding process according to claim 1 or ...

...arc welding apparatus according to claim 4, wherein the arc welding process is a non-**consumable** electrode arc **welding** process.

6. The arc welding apparatus according to claim 4 or 5, wherein the optical...

6/3,K/2 (Item 2 from file: 348)

DIALOG(R) File 348:EUROPEAN PATENTS

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00447314

METHOD OF OPERATION FOR HIGH SPEED AUTOMATIC WELDING

VERFAHREN ZUM AUTOMATISCHEN HOCHGESCHWINDIGKEITSSCHWEISSEN

PROCEDE DE FONCTIONNEMENT POUR SOUDAGE AUTOMATIQUE A VITESSE ELEVEE

PATENT ASSIGNEE:

CRC-Evans Pipeline International, Inc., (1183060), P.O. Box 3227,
Houston, Texas 77253, (US), (applicant designated states: DE;FR;GB)

INVENTOR:

LAING, Brian, S., 11515 Bristol Lane Court, Houston, TX 77066, (US)

LEGAL REPRESENTATIVE:

UEXKULL & STOLBERG (100011), Patentanwälte Beselerstrasse 4, 22607
Hamburg, (DE)

PATENT (CC, No, Kind, Date): EP 461203 A1 911218 (Basic)

EP 461203 A1 920902

EP 461203 B1 960828

WO 9109700 910711

APPLICATION (CC, No, Date): EP 90906577 900104; WO 90US21 900104

PRIORITY (CC, No, Date): EP 90906577 900104; WO 90US21 900104

DESIGNATED STATES: DE; FR; GB

INTERNATIONAL PATENT CLASS: B23K-009/12; B23K-009/067; B23K-009/028;

B23K-009/10;

NOTE:

No A-document published by EPO

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	EPAB96	494
CLAIMS B	(German)	EPAB96	455
CLAIMS B	(French)	EPAB96	596
SPEC B	(English)	EPAB96	15856
Total word count - document A			0
Total word count - document B			17401
Total word count - documents A + B			17401

...SPECIFICATION and stopping the welders at appropriate locations. Almost all of these functions must be initiated, **monitored** and stopped through **electronic** equipment. However, an internal welder must function in a severe environment. It must be used...is positioned between the clamping assembly 52 and 54. The welding assembly 56 includes the **welding** torches, the related **consumables** supply and mechanical operation devices for providing a weld between abutting pipe joint 32 and...

6/3,K/3 (Item 1 from file: 349)
 DIALOG(R)File 349:PCT FULLTEXT
 (c) 2005 WIPO/Univentio. All rts. reserv.

01181283 **Image available**

WELDING TORCH MAINTENANCE CENTER
DISPOSITIF D'ENTRETIEN DE CHALUMEAU SOUDEUR

Patent Applicant/Assignee:

NASARC TECHNOLOGIES INC, 695 McMurray Drive, Unit 6, Waterloo, Ontario
 N2V 2B7, CA, CA (Residence), CA (Nationality), (For all designated
 states except: US)

Patent Applicant/Inventor:

RICE Jody, 375 Kingscourt Drive, Unit 27, Waterloo, Ontario N2K 3N7, CA,
 CA (Residence), CA (Nationality), (Designated only for: US)
 KTEILY Naseem, 426 Hagen Court, Waterloo, Ontario N2K 4A8, CA, CA
 (Residence), CA (Nationality), (Designated only for: US)

Legal Representative:

HARRIS John D (et al) (agent), Gowling Lafleur Henderson LLP, 160 Elgin
 Street, Suite 2600, Ottawa, Ontario K1P 1C3, CA,

Patent and Priority Information (Country, Number, Date):

Patent: WO 2004103632 A1 20041202 (WO 04103632)
 Application: WO 2004CA775 20040526 (PCT/WO CA04000775)
 Priority Application: CA 2429974 20030526

Designated States:

(All protection types applied unless otherwise stated - for applications
 2004+)

AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM
 DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC
 LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO
 RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW
 (EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PL PT RO
 SE SI SK TR
 (OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG
 (AP) BW GH GM KE LS MW MZ NA SD SL SZ TZ UG ZM ZW
 (EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English

Fulltext Word Count: 7126

Fulltext Availability:

Detailed Description
 Claims

Detailed Description

... in US Patent 2,836,705) has a torch body that conducts.

electricity, receives a **consumable welding** wire, and has a diffuser that directs a shielding gas around a welding arc...

...not capable of informing the operator when to refill the fluid reservoir.

The length of **consumable welding** wire sticking out from the end of the contact tip inside 10 the nozzle...

Claim

... operation controller comprises a microcontroller.

3 The maintenance center according to claim 1, wherein the **electronic** operation controller is capable of **detecting** an abnormality in the detected information and responding thereto by taking a corrective action.

4...

6/3,K/4 (Item 2 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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00896798 **Image available**

EXTERNAL PIPE WELDING APPARATUS

APPAREIL DE SOUDAGE EXTERIEUR DE TUYAUX

Patent Applicant/Assignee:

O J PIPELINES CANADA AN ALBERTA LIMITED PARTNERSHIP, 1409-4th Street, Nisku, Alberta T9E 7M9, CA, CA (Residence), CA (Nationality), (For all designated states except: US)

Patent Applicant/Inventor:

MARHOFER William Eli, 327 Hunters Run, Edmonton, Alberta T6R 2N9, CA, CA (Residence), US (Nationality), (Designated only for: US)

SANFORD Shell, P.O. Box 1721, Jacksonville, TX 75766, US, US (Residence), US (Nationality), (Designated only for: US)

FLYNN Tim, 15008 Rio Terrace Drive, Edmonton, Alberta T5R 5M4, CA, CA (Residence), CA (Nationality), (Designated only for: US)

CRAIG John, 11347-10th Avenue, Edmonton, Alberta T6J 6S9, CA, CA (Residence), CA (Nationality), (Designated only for: US)

Legal Representative:

BOUSFIELD Kenneth L (et al) (agent), Blake, Cassels & Graydon LLP, Box 25, Commerce Court West, Toronto, Ontario, M5L 1A9, CA,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200230608 A1 20020418 (WO 0230608)

Application: WO 2001CA1311 20010913 (PCT/WO CA0101311)

Priority Application: CA 2322736 20001010

Designated States:

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ
EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR
LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PH PL PT RO RU SD SE SG SI SK
SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM
Publication Language: English
Filing Language: English
Fulltext Word Count: 10771

Fulltext Availability:
Detailed Description

Detailed Description

... around the first pipe section 22.

The travel speed of the main carriage 28 is **electronically** controlled and travel along the **track** 32 is permissible in both clockwise and counter-clockwise directions thereby obviating the need for...now described in greater detail. The welding head 30 comprises a torch 190 for applying **consumable** **weld** metal and heat to the weld seam 26. In accordance with the GMAW process, the torch 190 uses **welding** wire as a **consumable** electrode to form an arc between the power source and the weld seam 26. As...

...actuated individually or in combination one with the other to encourage appropriate distribution of the **consumable** electrode over the **weld** seam 26.

Although, in the first embodiment, only a single welding assembly 30 is carried...

6/3,K/5 (Item 3 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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00192852

DISTRIBUTED PROCESSING CONTROL SYSTEM FOR AUTOMATIC WELDING OPERATION
SYSTEME PILOTE DE TRAITEMENT REPARTI POUR DES OPERATIONS DE SOUDAGE
AUTOMATIQUE

Patent Applicant/Assignee:

CRC-EVANS PIPELINE INTERNATIONAL INC,
TEWS Paul A,

Inventor(s):

TEWS Paul A,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9110201 A1 19910711
Application: WO 90US20 19900104 (PCT/WO US9000020)
Priority Application: WO 90US20 19900104

Designated States:

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

AT AU BE CA CH DE DK ES FR GB IT JP LU NL SE SE SU US

Publication Language: English

Fulltext Word Count: 25140

Fulltext Availability:
Detailed Description

Detailed Description

... and stopping the welders at

appropriate locations. Almost all of these functions must be initiated, **monitored** and stopped through **electronic** equipment. However, an internal welder must function in a severe environment. It must be used...is positioned

between the clamping assembly 52 and 54. The welding assembly 56 includes the **welding** torches, the related **consumables** supply and mechanical operation devices for providing a weld between abutting pipe joint 32 and...

6/3,K/6 (Item 4 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
(c) 2005 WIPO/Univentio. All rts. reserv.

00192351 **Image available**

METHOD OF OPERATION FOR HIGH SPEED AUTOMATIC WELDING
PROCEDE DE FONCTIONNEMENT POUR SOUDAGE AUTOMATIQUE A VITESSE ELEVEE

Patent Applicant/Assignee:

CRC-EVANS PIPELINE INTERNATIONAL INC,
LAING Brian S,

Inventor(s):

LAING Brian S,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9109700 A1 19910711

Application: WO 90US21 19900104 (PCT/WO US9000021)

Priority Application: WO 90US21 19900104

Designated States:

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

AT AU BE CA CH DE DK ES FR GB IT JP LU NL SE SE SU US

Publication Language: English

Fulltext Word Count: 19786

Fulltext Availability:

Detailed Description

Detailed Description

... and stopping the welders at

appropriate locations. Almost all of these functions

must be initiated, **monitored** and stopped through

electronic equipment. However, an internal welder must

function in a severe environment. It must be used...is positioned

between the clamping assembly 52 and 54. The welding

assembly 56 includes the **welding** torches, the related

consumables supply and mechanical operation devices for

providing a weld between abutting pipe joint 32 and...

?

11/3,K/1 (Item 1 from file: 347)
DIALOG(R)File 347:JAPIO
(c) 2005 JPO & JAPIO. All rts. reserv.

06991694 **Image available**
ARC WELDING MACHINE AND TORCH THEREFOR

PUB. NO.: 2001-219273 [JP 2001219273 A]
PUBLISHED: August 14, 2001 (20010814)
INVENTOR(s): HSU CHRISTOPHER
APPLICANT(s): LINCOLN GLOBAL INC
APPL. NO.: 2000-386244 [JP 2000386244]
FILED: December 20, 2000 (20001220)
PRIORITY: 99 468073 [US 99468073], US (United States of America),
December 21, 1999 (19991221)

INVENTOR(s): HSU CHRISTOPHER

ABSTRACT

... connected to a work for generating an arc current/arc voltage, further generates an arc **welding** process between a **consumable** electrode passing the contact end to advance and the work, is provided with a first...

11/3,K/2 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2005 Thomson Derwent. All rts. reserv.

014958818 **Image available**
WPI Acc No: 2003-019332/200301
XRPX Acc No: N03-014792

Welding consumable management system includes remote system for
managing welding consumable based on information received from
consumable monitor in welder

Patent Assignee: LINCOLN GLOBAL INC (LINC-N)
Inventor: BLANKENSHIP G D; HSU C
Number of Countries: 100 Number of Patents: 003
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200286656	A2	20021031	WO 2002US11017	A	20020410	200301 B
EP 1412892	A2	20040428	EP 2002721696	A	20020410	200429
			WO 2002US11017	A	20020410	
AU 2002252613	A1	20021105	AU 2002252613	A	20020410	200433

Priority Applications (No Type Date): US 2001838970 A 20010420

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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WO 200286656	A2	E	42	G06F-000/00	
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Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA
CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN
IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ
OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA
ZM ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR
IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZM ZW

EP 1412892	A2	E		G06F-017/60	Based on patent WO 200286656
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Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT
LI LT LU LV MC MK NL PT RO SE SI TR

AU 2002252613	A1			G06F-000/00	Based on patent WO 200286656
---------------	----	--	--	-------------	------------------------------

Welding consumable management system includes remote system for managing welding consumable based on information received from consumable monitor in welder
...Inventor: HSU C

Abstract (Basic):

... A monitor application (115) in a welder (110) collects information related to the **welding consumables**. A remote system (180) which is connected to a welder (110) through a network manages a **welding consumable** on the basis of an information received from the monitor application.
... 1) **Welding consumable** management method...
...2) Communication signal having instruction for **welding consumable** management program; and...
...3) Computer readable medium storing **welding consumable** management program...
...For managing **welding consumable** such as MIG wire, flux-cored wire, base metal wire, stainless steel wire, and core...
...The figure shows the schematic block diagram of the **welding consumable** management system...

11/3,K/3 (Item 1 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
(c) 2005 European Patent Office. All rts. reserv.

01839642

Welding wire positioning system and method

Vorrichtung und Verfahren zum Posistionieren von Schweissdraht

Dispositif et procede de positionnement d'un fil de soudage

PATENT ASSIGNEE:

LINCOLN GLOBAL, INC., (2670701), 1200 Monterey Pass Road, Monterey Park, California 91654, (US), (Applicant designated States: all)

INVENTOR:

Hsu, Christopher, 8510 Mansion Blvd., Mentor Ohio 44060, (US)
Barton, David J., 10019 Forest Lake Dr., Twinsburg Ohio 44087, (US)
Stava, Elliott K., 8484 Eaton Drive, Sagamore Hills OH 44067, (US)
Blankenship, George D., 12221 Bradford Road, Chardon Ohio 44024, (US)
Klein, Jeffrey R., 7598 Little Mountain Road, Mentor Ohio 44060, (US)

LEGAL REPRESENTATIVE:

Hennicke, Ernst Rudiger, Dipl.-Ing. et al (83471), Patentanwälte Buschhoff Hennicke Althaus Postfach 19 04 08, 50501 Köln, (DE)

PATENT (CC, No, Kind, Date): EP 1495827 A2 050112 (Basic)

EP 1495827 A3 050615

APPLICATION (CC, No, Date): EP 2004000109 040107;

PRIORITY (CC, No, Date): US 616397 030709

DESIGNATED STATES: AT; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HU; IE; IT; LI; LU; MC; NL; PT; RO; SE; SI; SK; TR

EXTENDED DESIGNATED STATES: AL; LT; LV; MK

INTERNATIONAL PATENT CLASS: B23K-009/12; B23K-009/095; B23K-009/167;

G01V-008/20; B05B-007/22; C23C-004/12; B23K-009/073

ABSTRACT WORD COUNT: 90

NOTE:

Figure number on first page: 2

LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200502	1896
SPEC A	(English)	200502	7608
Total word count - document A			9504
Total word count - document B			0
Total word count - documents A + B			9504

INVENTOR:

Hsu, Christopher ...

...SPECIFICATION aspect of the present invention, the arc voltage between the welding wire and the non- **consumable** electrode of the **welder** is measured to obtain information concerning the position of the welding wire relative to the non- **consumable** electrode. As the **welding** wire moves farther from the non-consumable electrode, the arc length between the non- **consumable** and the **welding** wire increases resulting in a increase in voltage for a particular current. Furthermore, when the...

...wire moves closer to the non-consumable electrode, the arc length resistance between the non- **consumable** **welding** electrode and the welding wire decreases thereby resulting in an decrease in voltage for a ...The arc voltage which is generated between at least one of the plurality of non- **consumable** electrodes and the **welding** wire can be used to obtain information about the position of the welding wire during ...

11/3,K/4 (Item 2 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
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01522211

SYSTEM AND METHOD FOR MANAGING WELDING CONSUMABLES
SYSTEM UND VERFAHREN ZUM VERWALTEN VON SCHWEI VERBRAUCHSMITTELN
GESTION DE CONSOMMABLES DE SOUDAGE ET SYSTEME A CET EFFET

PATENT ASSIGNEE:

Lincoln Global, Inc., (2670703), 1200 Monterey Pass Road, Monterey Park,
California 44024, (US), (Applicant designated States: all)

INVENTOR:

BLANKENSHIP, George Daryl, 12221 Bradford Drive, Chardon, OH 44024, (US)
HSU, Christopher, 8510 Mansion Boulevard, Mentor, OH 44060, (US)

LEGAL REPRESENTATIVE:

Grunecker, Kinkeldey, Stockmair & Schwanhausser Anwaltssozietat (100721)
, Maximilianstrasse 58, 80538 Munchen, (DE)

PATENT (CC, No, Kind, Date): EP 1412892 A2 040428 (Basic)

WO 2002086656 021031

APPLICATION (CC, No, Date): EP 2002721696 020410; WO 2002US11017 020410

PRIORITY (CC, No, Date): US 838970 010420

DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;
LU; MC; NL; PT; SE; TR

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: G06F-017/60

NOTE:

No A-document published by EPO

LANGUAGE (Publication,Procedural,Application): English; English; English

SYSTEM AND METHOD FOR MANAGING WELDING CONSUMABLES

INVENTOR:

... US)
HSU, Christopher ...

11/3,K/5 (Item 3 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
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01305513

Arc welder and torch for same
Lichtbogenschweissversorgung und Brenner
Alimentation et chalumeau pour soudage a l'arc

PATENT ASSIGNEE:

LINCOLN GLOBAL, INC., (2670702), 1200 Monterey Pass Road, Monterey Park,
California 91754, (US), (Proprietor designated states: all)

INVENTOR:

Hsu, Christopher , 8510 Mansion Boulevard, Mentor, Ohio 44060, (US

LEGAL REPRESENTATIVE:

GROSSE BOCKHORN SCHUMACHER (102032), Patent- und Rechtsanwälte
Frühlingstrasse 43A, 45133 Essen, (DE)

PATENT (CC, No, Kind, Date): EP 1118415 A2 010725 (Basic)
EP 1118415 A3 020403
EP 1118415 B1 050406

APPLICATION (CC, No, Date): EP 2000128055 001221;

PRIORITY (CC, No, Date): US 468073 991221

DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;
LU; MC; NL; PT; SE; TR

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: B23K-009/10; B23K-009/073; B23K-009/095;
B23K-009/12

ABSTRACT WORD COUNT: 162

NOTE:

Figure number on first page: 1

LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200130	1031
CLAIMS B	(English)	200514	827
CLAIMS B	(German)	200514	767
CLAIMS B	(French)	200514	944
SPEC A	(English)	200130	3925
SPEC B	(English)	200514	3821
Total word count - document A			4957
Total word count - document B			6359
Total word count - documents A + B			11316

INVENTOR:

Hsu, Christopher ...

...ABSTRACT A2

In an electric arc welder for creating an arc **welding** process between
a **consumable** electrode advancing through a contact tip and a workpiece,
the welder including a power supply...

...SPECIFICATION involves applying electrical current to a contact tip in a
welding torch through which a **consumable** electrode or **welding** wire is
passed as it moves toward a workpiece. Electrical current connected to
the welding...

...two tip sections are separated by an air gap or other insulator so that the **consumable welding** wire or electrode passes through first the upper tip section and then through the lower...

...invention, there is provided an improvement in an electric arc welder for creating an arc **welding** process between a **consumable** electrode or wire advancing through a contact tip and a workpiece, where the welder includes...

...providing weld current to torch or welding gun B so the torch can perform a **welding** operation. A **consumable** electrode or wire 10, supplied by a standard spool 12 and directed through the torch...

...SPECIFICATION involves applying electrical current to a contact tip in a welding torch through which a **consumable** electrode or **welding** wire is passed as it moves toward a workpiece. Electrical current connected to the welding...

...two tip sections are separated by an air gap or other insulator so that the **consumable welding** wire or electrode passes through first the upper tip section the through the lower tip...

...invention, there is provided an improvement in an electric arc welder for creating an arc **welding** process between a **consumable** electrode or wire advancing through a contact tip and a workpiece, where the welder includes...

...providing weld current to torch or welding gun B so the torch can perform a **welding** operation. A **consumable** electrode or wire 10, supplied by a standard spool 12 and directed through the torch...

...CLAIMS A2

1. In an electric arc welder for creating an arc **welding** process between a **consumable** electrode (10) advancing through a contact tip (100, 102) and a workpiece (WP), said welder...

...a frequency of greater than about 20 kHz.

13. A method for creating an arc **welding** process between a **consumable** electrode (10) advancing through a contact tip (100, 102) and a workpiece (WP) using a...

...CLAIMS B1

1. Electric arc welder (A) for creating an arc **welding** process between a **consumable** electrode (10) advancing through a contact tip (100, 102) and a workpiece (WP), said welder...

...a frequency of greater than about 20 kHz.

11. A method for creating an arc **welding** process between a **consumable** electrode (10) advancing through a contact tip (100, 102) and a workpiece (WP) using a...

11/3,K/6 (Item 4 from file: 348)
 DIALOG(R)File 348:EUROPEAN PATENTS
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01227865

Coded and electronically tagged welding wire
 Codierter und elektronisch markierter Schweissdraht
 Fil a souder code et marque electroniquement

PATENT ASSIGNEE:

LINCOLN GLOBAL, INC., (2670700), 22801 St. Clair Avenue, Cleveland, Ohio 44117-1199, (US), (Applicant designated States: all)

INVENTOR:

Blankenship, George D., 12221 Bradford Road, Chardon, Ohio 44024, (US)

Hsu, Christopher, 8510 Mansion Blvd., Mentor, Ohio 44060, (US)

LEGAL REPRESENTATIVE:

GROSSE BOCKHORN SCHUMACHER (102032), Patent- und Rechtsanwälte
Fruhlingstrasse 43A, 45133 Essen, (DE)

PATENT (CC, No, Kind, Date): EP 1065620 A2 010103 (Basic)

EP 1065620 A3 030709

APPLICATION (CC, No, Date): EP 2000112987 000621;

PRIORITY (CC, No, Date): US 336574 990621

DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;
LU; MC; NL; PT; SE

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: G06K-001/12; G06K-019/06; G06K-019/077;

G06K-019/04; B23K-009/133; B23K-035/40; B23K-009/095; B23K-009/32

ABSTRACT WORD COUNT: 115

NOTE:

Figure number on first page: 8

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200101	2097
SPEC A	(English)	200101	7397
Total word count - document A			9494
Total word count - document B			0
Total word count - documents A + B			9494

INVENTOR:

... US)

Hsu, Christopher ...

...SPECIFICATION present invention to provide a method and system for
controlling the operation of electric arc **welding** processes using
consumable welding wire based on encoded information pertaining to the
wire and extracted at the point of...

11/3,K/7 (Item 1 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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00998336 **Image available**

SYSTEM AND METHOD TO FACILITATE WIRELESS WIDE AREA COMMUNICATION IN A
WELDING ENVIRONMENT

SYSTEME ET PROCEDE DESTINE A FACILITER LA COMMUNICATION SANS FIL SUR UNE
ZONE ETENDUE DANS UN ENVIRONNEMENT DE SOUDAGE

Patent Applicant/Assignee:

LINCOLN GLOBAL INC, 1200 Monterey Pass Road, Monterey Park, CA 44024, US,
US (Residence), US (Nationality)

Inventor(s):

CLARK Keith, 9901 Juniper Court, Concord, OH 44060, US,

HSU Christopher, 8510 Mansion Boulevard, Mentor, OH 44060, US,

BLANKENSHIP George Daryl, 12221 Bradford Drive, Chardon, OH 44024, US

Legal Representative:

AMIN Himanshu S (et al) (agent), Amin & Turocy, LLP, 1900 E. 9th Street,
24th Floor, National City Center, Cleveland, OH 44114, US,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200328389 A1 20030403 (WO 0328389)

Application: WO 2002US14387 20020508 (PCT/WO US0214387)

Priority Application: US 2001962437 20010925

Designated States:

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ
EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR
LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI
SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English

Fulltext Word Count: 9874

Inventor(s):

... **HSU Christopher**

Fulltext Availability:

Detailed Description

Claims

Detailed Description

... streaming video camera image(s) of weld(s) and/or welding system 5 1 0), **consumable** usage monitor 516, **weld** controller 518 and welding equipment 522.

The welding system 5 1 0 can, optionally, further...system 5 1 0, for example.

The consumable usage monitor 516 is adapted to monitor **welding consumable** (s) (e.g., wire, consumable electrode, gas and/or flux) that have been consumed by...e.g., welding procedure(s), component(s) associated with

20

managing, ordering and/or monitoring **welding consumable** (s), component(s) associated with welding application development, component(s) associated with creating, managing and...

Claim

... further comprising at least one of welding procedure(s), a component associated with managing a **welding consumable**, a component associated with ordering a **welding consumable**, a component associated with monitoring **welding consumable**, a component associated with welding application development, a component associated with creating a welding procedure...

11/3,K/8 (Item 2 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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00952522 **Image available**

SYSTEM AND METHOD FOR MANAGING WELDING CONSUMABLES

GESTION DE CONSOMMABLES DE SOUDAGE ET SYSTEME A CET EFFET

Patent Applicant/Assignee:

LINCOLN GLOBAL INC, 1200 Monterey Pass Road, Monterey Park, CA 44024, US,
US (Residence), US (Nationality)

Inventor(s):

BLANKENSHIP George Daryl, 12221 Bradford Drive, Chardon, OH 44024, US,
HSU Christopher , 8510 Mansion Boulevard, Mentor, OH 44060, US

Legal Representative:

AMIN Himanshu S (et al) (agent), Amin & Turocy, LLP, 1900 E. 9th Street,
24th Floor, Cleveland, OH 44114, US,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200286656 A2-A3 20021031 (WO 0286656)

Application: WO 2002US11017 20020410 (PCT/WO US02011017)

Priority Application: US 2001838970 20010420

Designated States:

(Protection type is "patent" unless otherwise stated - for applications
prior to 2004)

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ
EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR
LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI
SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English

Fulltext Word Count: 10406

SYSTEM AND METHOD FOR MANAGING WELDING CONSUMABLES

Inventor(s):

... HSU Christopher

Fulltext Availability:

Detailed Description

Claims

English Abstract

A system and method for managing **welding consumable** (s) is provided.
The invention includes a welder (110, 210, 310, 710) having a consumable

...

...and/or a remote system (180, 230, 320). The invention further provides
for monitoring of **welding consumable** (s) usage and ordering of
welding consumable (s) from suppliers, distributors and/or
manufacturers. The invention further provides for an optional arc...

...that provides information regarding weld quality. The invention further
provides for invoicing a customer for **welding consumable** (s) as the
consumable(s) are used by the customer. The invention further provides
for invoicing of customers for **welding consumable** (s) that produce
acceptable welds. The invention further provides for remote management of
customer **welding consumable** (s) inventory based at least in part upon
information received regarding **welding consumable** (s) usage. The
invention further provides for communication with a production component
(130, 360, 530...

...540) and/or materials management component (150, 380, 550) in order to
facilitate automation of **welding consumable** (s) management.

Detailed Description

Title: SYSTEM AND METHOD FOR MANAGING WELDING CONSUMABLES
TECHNICAL FIELD

The present invention relates generally to welding systems. More

receiving information regarding usage of...50, wherein the threshold ordering level is updated continuously and in real-time from aggregated **welding consumable** (s) data, supplier's lead time for the consumable, availability of the consumable and /or...

...a

signal; and,

a remote system (I 80, 230, 320) adapted to facilitate management of **welding consumable** (s) for the **welder** (I 10, 210, 310,

11/3,K/9 (Item 3 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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00925076 **Image available**

SYSTEM AND METHOD PROVIDING DISTRIBUTED WELDING ARCHITECTURE

SYSTEME ET PROCEDE DE CREATION D'UNE ARCHITECTURE DE SOUDURE REPARTIE

Patent Applicant/Assignee:

THE LINCOLN ELECTRIC COMPANY, 22801 Saint Claire Avenue, Cleveland, OH 44117, US, US (Residence), US (Nationality)

Inventor(s):

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HSU Christopher , 8510 Mansion Boulevard, Mentor, OH 44060, US,

HILLEN Edward Dennis, 5670 Canyon View Drive, Painesville, OH 44077, US

Legal Representative:

AMIN Himanshu S (agent), Amin & Turocy, LLP, 1900 E. Ninth Street, 24th Floor, National City Center, Cleveland, OH 44115, US,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200258878 A1 20020801 (WO 0258878)

Application: WO 2002US1888 20020122 (PCT/WO US0201888)

Priority Application: US 2001770064 20010125

Designated States:

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ
EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR
LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI
SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English

Fulltext Word Count: 13834

Inventor(s):

... **HSU Christopher**

Fulltext Availability:

Detailed Description

Detailed Description

... or applications associated with the welding system (e.g., welding equipment, weld I 0 controller, **weld** monitor, **consumable** usage monitor) over an internal welding system bus, wherein the applications interact and communicate via...

?

File 256:TecInfoSource 82-2005/Aug
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File 2:INSPEC 1969-2005/Aug W2
(c) 2005 Institution of Electrical Engineers
File 35:Dissertation Abs Online 1861-2005/Jul
(c) 2005 ProQuest Info&Learning
File 65:Inside Conferences 1993-2005/Aug W3
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File 99:Wilson Appl. Sci & Tech Abs 1983-2005/Jul
(c) 2005 The HW Wilson Co.
File 583:Gale Group Globalbase(TM) 1986-2002/Dec 13
(c) 2002 The Gale Group
File 474:New York Times Abs 1969-2005/Aug 22
(c) 2005 The New York Times
File 475:Wall Street Journal Abs 1973-2005/Aug 22
(c) 2005 The New York Times

Set	Items	Description
S1	328	WELD?(3N)CONSUMABLE?
S2	2664	WELD?(3N)EQUIPMENT?
S3	1	FUSION?(3N)CONSUMABLE
S4	33410	(COMPUTERI? OR AUTOMATE? OR ELECTRONIC?) (5N) (MONITOR? OR A- SSESS? OR TRACK? OR DETECT?)
S5	3289	AU=(BLANKENSHIP, G? OR BLANDENSHIP G? OR HSU, C? OR HSU C?)
S6	1	S1 AND S4
S7	11	(S2 OR S3) AND S4
S8	11	S7 NOT S6
S9	10	S8 NOT PY>2001
S10	0	S5 AND S1

6/5/1 (Item 1 from file: 2)
DIALOG(R)File 2:INSPEC
(c) 2005 Institution of Electrical Engineers. All rts. reserv.

02037056 INSPEC Abstract Number: B83028799

Title: **Modern power sources score in non-ferrous welding**

Author(s): Heath, D.J.

Author Affiliation: Inco Alloy Products Ltd., Birmingham, UK

Journal: Welding and Metal Fabrication p.374-8

Publication Date: Oct. 1982 Country of Publication: UK

CODEN: WLMFAM ISSN: 0043-2245

Language: English Document Type: Journal Paper (JP)

Treatment: Applications (A)

Abstract: Three commercially-available **electronically** -controlled power sources were **assessed** in conjunction with various non-ferrous **welding consumables** . The aim of the exercise was to overcome problems previously encountered with conventional units. (0 Refs)

Subfile: B

Descriptors: arc welding; power supplies to apparatus

Identifiers: nonferrous welding; power sources

Class Codes: B8360 (Power convertors and power supplies to apparatus);

B8620 (Manufacturing industries)

?

9/5/1 (Item 1 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2005 Institution of Electrical Engineers. All rts. reserv.

5520917 INSPEC Abstract Number: B9704-7810C-012, C9704-7480-176

Title: Intelligent welding with laser ultrasonic sensing

Author(s): Graham, G.M.; Sanderson, T.M.; Ume, C.I.

Author Affiliation: George W. Woodruff Sch. of Mech. Eng., Georgia Inst. of Technol., Atlanta, GA, USA

Conference Title: The First World Congress on Intelligent Manufacturing Processes and Systems. Proceedings Part vol.2 p.1043-53 vol.2

Publisher: Univ. Puerto Rico, San Juan, Puerto Rico

Publication Date: 1995 Country of Publication: Puerto Rico 2 vol. (xii+xx+1399) pp.

Material Identity Number: XX97-00420

Conference Title: Proceedings of 1st World Congress on Intelligent Manufacturing Processes and Systems

Conference Sponsor: Int. Inst. Production Eng. Res.; IEEE

Conference Date: 13-17 Feb. 1995 Conference Location: Mayaguez/San Juan, Puerto Rico

Language: English Document Type: Conference Paper (PA)

Treatment: Applications (A); Practical (P)

Abstract: Repairing defective weld joints in manufacturing processes is an expensive undertaking. It may cost ten times more to repair a defective weld joint than it would have cost to do it correctly the first time. Sensors which can insure weld quality in real-time are therefore needed for automated **welding equipment**. One major **weld** quality issue is the absence of sensors for on-line **monitoring** of penetration depth of **automated** welders. This paper discusses the state of the art in research directed at developing a real-time ultrasonic weld penetration depth sensor using laser fiber array generated ultrasound. Ultrasonic sensing systems have the significant advantages of being both noncontact and non-destructive. A summary of experimental results to date is given. The directions which future research should take are also discussed. (64 Refs)

Subfile: B C

Descriptors: inspection; manufacturing processes; ultrasonic transducers; ultrasonic welding; **welding equipment**

Identifiers: intelligent welding; laser ultrasonic sensing; manufacturing processes; automated **welding equipment**; weld quality; real-time ultrasonic weld penetration depth sensor; laser fiber array

Class Codes: B7810C (Sonic and ultrasonic transducers); B7820 (Sonic and ultrasonic applications); C7480 (Production engineering computing); C3240N (Intelligent sensors)

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9/5/2 (Item 2 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2005 Institution of Electrical Engineers. All rts. reserv.

4730738 INSPEC Abstract Number: B9409-8620-006, C9409-7420-046

Title: Weld modeling and control using artificial neural networks

Author(s): Cook, G.E.; Barnett, R.J.; Andersen, K.; Strauss, A.M.

Author Affiliation: Eng. Sch., Vanderbilt Univ., Nashville, TN, USA
p.2181-9 vol.3

Publisher: IEEE, New York, NY, USA

Publication Date: 1993 Country of Publication: USA 3 vol. xxxi+2489 pp.

ISBN: 0 7803 1462 X

U.S. Copyright Clearance Center Code: 0 7803 1462 X/93/\$03.00

Conference Title: Proceedings of IEEE Industry Application Society Annual Meeting

Conference Sponsor: IEEE

Conference Date: 2-8 Oct. 1993 Conference Location: Toronto, Ont., Canada

Language: English Document Type: Conference Paper (PA)

Treatment: Applications (A); Practical (P); Theoretical (T); Experimental (X)

Abstract: Artificial neural networks were evaluated for monitoring and control of the variable polarity plasma arc welding (VPPAW) process. Three areas of welding application were investigated: weld process modeling, weld process control, and weld bead profile analysis for quality control. Experiments and analysis confirm that artificial neural networks are powerful tools for analysis, modeling, and control applications. They are particularly attractive in view of their capabilities to process nonlinear and noisy data, learn from actual welding data, and execute at relatively high speed. It is shown that neural networks are capable of modeling parameters of the VPPAW process to on the order of 10% accuracy or better. The same was observed when neural networks were used to select **welding equipment** parameters and the resulting bead geometries were estimated. These performance figures suggest that a VPPA welding control system can be implemented based on neural network models and control mechanisms. (12 Refs)

Subfile: B C

Descriptors: arc welding; **computerised monitoring**; learning (artificial intelligence); neural nets; process computer control; quality control

Identifiers: nonlinear data; learning; artificial neural networks; monitoring; variable polarity plasma arc welding; process modeling; process control; weld bead profile analysis; quality control; applications; noisy data; accuracy; performance

Class Codes: B8620 (Manufacturing industries); B7210B (Automatic test and measurement systems); B0170L (Inspection and quality control); C7420 (Control engineering); C3355F (Assembling); C5290 (Neural computing techniques); C7410H (Instrumentation)

9/5/3 (Item 3 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2005 Institution of Electrical Engineers. All rts. reserv.

03326766 INSPEC Abstract Number: B89021704, C89018605

Title: **Equipment development, process monitoring and quality control (electron beam welding)**

Author(s): Eccleston, D.A.

Conference Title: International Conference on Power Beam Technology p. 17-30

Editor(s): Russell, J.D.

Publisher: Welding Inst, Abington, Cambridge, UK

Publication Date: 1987 Country of Publication: UK 446 pp.

ISBN: 0 85300 214 2

Conference Sponsor: American Soc. Metals; American Welding Soc.; Culham Laser Applications Group; et al

Conference Date: 10-12 Sept. 1986 Conference Location: Brighton, UK

Language: English Document Type: Conference Paper (PA)

Treatment: Practical (P)

Abstract: Wentgate Engineers Limited first introduced microprocessor control of the beam parameters to their range of electron beam welders in 1982. The microprocessor control of the beam parameters is additional to, and separate from, the microprocessor based control of the workhandling and vacuum sequence control. The availability of increasingly powerful

microprocessors has facilitated the introduction of additional features to the basic control software package. Typical of these features are automatic filament saturation, automatic gun clean-up, automatic parameter tracking, extended work handling control, process monitoring and quality control. (0 Refs)

Subfile: B C

Descriptors: **computerised monitoring** ; electron beam welding; quality control; software packages; **welding equipment**

Identifiers: electron beam welding; microprocessor based control; control software package; automatic filament saturation; automatic gun clean-up; automatic parameter tracking; extended work handling control; process monitoring; quality control

Class Codes: B8620 (Manufacturing industries); B0170L (Inspection and quality control); C3355F (Assembling); C7420 (Control engineering); C7410D (Electronic engineering)

9/5/4 (Item 4 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2005 Institution of Electrical Engineers. All rts. reserv.

03304675 INSPEC Abstract Number: C89016529

Title: Multi-variable monitoring of spot welded quality

Author(s): Hodgson, D.C.; Broomhead, J.

Conference Title: First International Conference on Advanced Welding Systems p.273-80

Editor(s): Houldcroft, P.T.

Publisher: Welding Inst, Abington, Cambridge, UK

Publication Date: 1987 Country of Publication: UK 519 pp.

ISBN: 0 85300 191 X

Conference Date: 19-21 Nov. 1985 Conference Location: London, UK

Language: English Document Type: Conference Paper (PA)

Treatment: Applications (A); Practical (P)

Abstract: A new monitor is described based on dynamic resistance with a separate check on current and time. Being microprocessor-based, the monitor brings all the advantages of modern microelectronics to overcome the difficulties associated with more traditional monitors. The monitor has several new features made possible by microelectronics: it is user-friendly, always advising the operator on what to do next or what went wrong; it has the capability of memorising the signatures of a complete sequence of welds on a large assembly and giving a verdict on which welds in the sequence are defective; and a communications capability also enables the monitor to be integrated into a factory management system. The monitor has been undergoing trials at a number of factories on widely differing applications. The results of these trials are described in outline. (3 Refs)

Subfile: C

Descriptors: **computerised monitoring** ; factory automation; microcomputer applications; quality control; **welding equipment**

Identifiers: spot welding; multivariable monitor; **computerised monitoring** ; quality control; spot welded quality; dynamic resistance; factory management system

Class Codes: C7420 (Control engineering); C3355F (Assembling)

9/5/5 (Item 5 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2005 Institution of Electrical Engineers. All rts. reserv.

03256661 INSPEC Abstract Number: B88076060, C88061985

Title: Welding and fabrication equipment for automobile manufacture
Journal: Welding and Metal Fabrication vol.56, no.4 p.176, 178, 180, 182

Publication Date: May-June 1988 **Country of Publication:** UK

CODEN: WLMFAM **ISSN:** 0043-2245

Language: English **Document Type:** Journal Paper (JP)

Treatment: Practical (P); Product Review (R)

Abstract: The automobile industry is one of the most important areas of application for welding and fabrication technology. Quality and repeatability are of prime importance in volume vehicle production and this is reflected in the types of equipment used. The industry has always been willing to employ innovative manufacturing techniques where they can be shown to be effective. In recent years this has led to the introduction of advanced **equipment** such as **welding** and handling robots, **computerised weld monitoring**, synergic power sources etc. This is illustrated by the selection of equipment described in the paper. (0 Refs)

Subfile: B C

Descriptors: automobile industry; electric welding; industrial robots

Identifiers: quality; **welding equipment**; industrial robots; fabrication equipment; automobile manufacture; repeatability; **computerised weld monitoring**; synergic power sources

Class Codes: B8620 (Manufacturing industries); C3355 (Manufacturing processes)

9/5/6 (Item 6 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2005 Institution of Electrical Engineers. All rts. reserv.

02669481 INSPEC Abstract Number: B86036196, C86028290

Title: Precision cleaving and fusion welding of single mode fibres

Author(s): Andrews, P.V.; Owens, D.

Author Affiliation: BICC Res. & Eng. Ltd., London, UK

Journal: Proceedings of the SPIE - The International Society for Optical Engineering vol.522 p.18-24

Publication Date: 1985 **Country of Publication:** USA

CODEN: PSISDG **ISSN:** 0277-786X

Conference Title: Fibre Optics '85

Conference Sponsor: SPIE; Electron. Components Ind. Federation; Inst. Meas. & Control; et al

Conference Date: 30 April-2 May 1985 **Conference Location:** London, UK

Language: English **Document Type:** Conference Paper (PA); Journal Paper (JP)

Treatment: Practical (P)

Abstract: The fusion welding of single-mode fibre in the field requires readily portable equipment, and preferably single-man operation, implying that joint monitoring equipment should be contained in the welding machine. The essential preliminary to low-loss splicing is fibre cleaving to within 0.5 degrees of squareness. A hand-held cleaver that achieves this was designed. A fusion-welding machine which includes monitoring of core transmission by local light injected and detection was developed. The machine is microprocessor-controlled, so that fibre alignment and the welding process are automatic. The mean splice loss is 0.054 dB. Field experience is also reported. (6 Refs)

Subfile: B C

Descriptors: **computerised monitoring**; optical communication equipment; optical fibres; optical losses; optical workshop techniques; **welding equipment**

Identifiers: microprocessor-controlled welding machine; core transmission monitoring; fusion welding; single mode fibres; joint monitoring equipment;

welding machine; fibre cleaving; splice loss

Class Codes: B4125 (Fibre optics); B6260 (Optical links and equipment);
C3355F (Assembling); C7420 (Control engineering)

9/5/7 (Item 7 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2005 Institution of Electrical Engineers. All rts. reserv.

02555026 INSPEC Abstract Number: B85065668, C85049218

Title: Microprocessors move into weld process control

Journal: Welding Design and Fabrication vol.58, no.6 p.59-61

Publication Date: June 1985 Country of Publication: USA

CODEN: WDEFAS ISSN: 0043-2253

Language: English Document Type: Journal Paper (JP)

Treatment: Applications (A)

Abstract: The chip brings precision and programmability to **welding** and cutting **equipment**. Because it monitors at the arc, the microprocessor corrects for all deviations in arc voltage. (0 Refs)

Subfile: B C

Descriptors: arc welding; **computerised monitoring**; cutting; process computer control

Identifiers: arc welding; weld process control; chip; precision; programmability; cutting equipment; microprocessor; deviations in arc voltage

Class Codes: B8620 (Manufacturing industries); C3355F (Assembling);
C7420 (Control engineering)

9/5/8 (Item 8 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2005 Institution of Electrical Engineers. All rts. reserv.

02476331 INSPEC Abstract Number: C85032478

Title: GTA systems for high purity welding

Author(s): Kraatz, G.A.

Author Affiliation: Sciaky Bros. Inc., Chicago, IL, USA

Conference Title: 2nd Biennial International Machine Tool Technical Conference Proceedings p.5/165-83 vol.2

Publisher: Nat. Machine Tool Builders Assoc, McLean, VA, USA

Publication Date: 1984 Country of Publication: USA 4 vol.
(xxxviii+518+502+552+502) pp.

Conference Sponsor: Nat. Machine Tool Builders Assoc

Conference Date: 5-13 Sept. 1984 Conference Location: Chicago, IL, USA

Language: English Document Type: Conference Paper (PA)

Treatment: Practical (P)

Abstract: The welding of complex titanium structures poses significant process problems such as controlling the inert environment, automating the welding motion with a CNC motion control or providing either adaptive feedback to the control or visual feedback to the operator. The author describes the major functional elements of large inert GTA welding systems for high purity welding of titanium. These functional elements include: the chamber, pumping, and inert gas control system; the gas purity monitoring system; the CNC manipulation and welding control; and tv and/or seam tracking facilities. The integration of these system elements and other state of the art techniques is accomplished to achieve a turnkey machine. Two such machines are described and the implementation of other technologies is discussed. (0 Refs)

Subfile: C

Descriptors: **computerised monitoring**; computerised numerical control;

welding equipment

Identifiers: inert gas chamber; high purity welding; titanium; GTA welding systems; inert gas control; gas purity monitoring; CNC manipulation; welding control; seam tracking

Class Codes: C3355F (Assembling); C7420 (Control engineering)

9/5/9 (Item 9 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2005 Institution of Electrical Engineers. All rts. reserv.

02286293 INSPEC Abstract Number: C84033443

Title: A study of microcomputer-supported gas tungsten arc welding

Author(s): Wheatley, J.M.; Lucas, W.

Author Affiliation: Dept. of Civil Engng. Materials, Univ. of New South Wales, Kensington, NSW, Australia

Conference Title: Australian Welding Institute 31st Annual Conference WELCOM 83. Welding and Computers p.15-21

Publisher: Australian Welding Inst, Sydney, NSW, Australia

Publication Date: 1983 Country of Publication: Australia 205+62 pp.

ISBN: 0 909539 29 4

Conference Sponsor: Australian Welding Inst

Conference Date: 16-21 Oct. 1983 Conference Location: Sydney, NSW, Australia

Language: English Document Type: Conference Paper (PA)

Treatment: Practical (P)

Abstract: Describes progress in an investigation into some of the possible applications of microcomputers of the 'personal' class for the support of welding processes. Steps involved in the development of appropriate interfaces between microcomputers and the **welding equipment** are described from the point of view of a welding technologist, having little previous experience of computers, and outlines are given of programs evolved to assist with the setting up, control and monitoring of a GTA welding system. (10 Refs)

Subfile: C

Descriptors: arc welding; **computerised monitoring**; process computer control

Identifiers: **computerised monitoring**; process computer control; microcomputer-supported gas tungsten arc welding; interfaces; **welding equipment**

Class Codes: C3355F (Assembling); C7420 (Control engineering)

9/5/10 (Item 10 from file: 2)

DIALOG(R)File 2:INSPEC

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01780960 INSPEC Abstract Number: B82004525, C82000943

Title: Improvement of industrial performance of electron-beam welding equipment by the use of computers; a new field of application

Author(s): Cazes, R.; Sciaky, A.M.; Sayegh, G.

Author Affiliation: Sciaky SA, Vitry-sur-Seine, France

Conference Title: Developments in Mechanised, Automated and Robotic Welding, an International Conference p.P6.1-9

Publisher: Welding Inst, Abington, UK

Publication Date: 1981 Country of Publication: UK 326 pp.

Conference Date: 18-20 Nov. 1980 Conference Location: London, UK

Language: English Document Type: Conference Paper (PA)

Treatment: Practical (P)

Abstract: The computer control of electron-beam (EB) **welding equipment**

started about ten years ago. The paper deals with a computer controller now fitted to more than seventy machines employed in production. After a short description of the components which constitute the controller, it presents the way in which the various parameters and functions of the machine are taken in charge. It shows how the system can help in the maintenance of the machine by sending appropriate messages on the state of a certain number of critical components (pumps, temperature, contacts, etc.). With specific software, the controller permits the heat treatment of localised surfaces by controlling the deflection of the beam. This method of controlling the energy input at the various points of the pattern takes full advantages of EB for heat treatment. (0 Refs)

Subfile: B C

Descriptors: **computerised monitoring** ; electric welding; manufacturing computer control

Identifiers: industrial performance; electron-beam welding; computer control; maintenance; heat treatment

Class Codes: B8620 (Manufacturing industries); C3355F (Assembling); C3355 (Manufacturing processes); C7420 (Control engineering); C7440 (Civil and mechanical engineering)
?

File 16:Gale Group PROMT(R) 1990-2005/Aug 25
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 File 148:Gale Group Trade & Industry DB 1976-2005/Aug 25
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 File 160:Gale Group PROMT(R) 1972-1989
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 (c) 2005 The Gale Group
 File 636:Gale Group Newsletter DB(TM) 1987-2005/Aug 25
 (c) 2005 The Gale Group
 File 9:Business & Industry(R) Jul/1994-2005/Aug 24
 (c) 2005 The Gale Group
 File 15:ABI/Inform(R) 1971-2005/Aug 24
 (c) 2005 ProQuest Info&Learning
 File 20:Dialog Global Reporter 1997-2005/Aug 25
 (c) 2005 Dialog
 File 95:TEME-Technology & Management 1989-2005/Jul W3
 (c) 2005 FIZ TECHNIK
 File 476:Financial Times Fulltext 1982-2005/Aug 25
 (c) 2005 Financial Times Ltd
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 (c) 2005 McGraw-Hill Co. Inc
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 (c) 2005 San Jose Mercury News
 File 810:Business Wire 1986-1999/Feb 28
 (c) 1999 Business Wire
 File 813:PR Newswire 1987-1999/Apr 30
 (c) 1999 PR Newswire Association Inc
 File 635:Business Dateline(R) 1985-2005/Aug 24
 (c) 2005 ProQuest Info&Learning
 File 570:Gale Group MARS(R) 1984-2005/Aug 25
 (c) 2005 The Gale Group
 File 477:Irish Times 1999-2005/Aug 24
 (c) 2005 Irish Times
 File 710:Times/Sun.Times(London) Jun 1988-2005/Aug 24
 (c) 2005 Times Newspapers
 File 711:Independent(London) Sep 1988-2005/Aug 24
 (c) 2005 Newspaper Publ. PLC
 File 756:Daily/Sunday Telegraph 2000-2005/Aug 25
 (c) 2005 Telegraph Group
 File 757:Mirror Publications/Independent Newspapers 2000-2005/Aug 25
 (c) 2005
 File 387:The Denver Post 1994-2005/Aug 24
 (c) 2005 Denver Post
 File 471:New York Times Fulltext 1980-2005/Aug 25
 (c) 2005 The New York Times
 File 492:Arizona Repub/Phoenix Gaz 19862002/Jan 06
 (c) 2002 Phoenix Newspapers
 File 494:St LouisPost-Dispatch 1988-2005/Aug 22
 (c) 2005 St Louis Post-Dispatch
 File 498:Detroit Free Press 1987-2005/Aug 24
 (c) 2005 Detroit Free Press Inc.
 File 631:Boston Globe 1980-2005/Aug 24
 (c) 2005 Boston Globe
 File 633:Phil.Inquirer 1983-2005/Aug 24

(c) 2005 Philadelphia Newspapers Inc
 File 638:Newsday/New York Newsday 1987-2005/Aug 22
 (c) 2005 Newsday Inc.
 File 640:San Francisco Chronicle 1988-2005/Aug 25
 (c) 2005 Chronicle Publ. Co.
 File 641:Rocky Mountain News Jun 1989-2005/Aug 25
 (c) 2005 Scripps Howard News
 File 702:Miami Herald 1983-2005/Aug 21
 (c) 2005 The Miami Herald Publishing Co.
 File 703:USA Today 1989-2005/Aug 24
 (c) 2005 USA Today
 File 704:(Portland)The Oregonian 1989-2005/Aug 23
 (c) 2005 The Oregonian
 File 713:Atlanta J/Const. 1989-2005/Aug 25
 (c) 2005 Atlanta Newspapers
 File 714:(Baltimore) The Sun 1990-2005/Aug 24
 (c) 2005 Baltimore Sun
 File 715:Christian Sci.Mon. 1989-2005/Aug 25
 (c) 2005 Christian Science Monitor
 File 725:(Cleveland)Plain Dealer Aug 1991-2005/Aug 24
 (c) 2005 The Plain Dealer
 File 735:St. Petersburg Times 1989- 2005/Aug 24
 (c) 2005 St. Petersburg Times

Set	Items	Description
S1	1445	WELD?(3N)CONSUMABLE?
S2	19650	WELD?(3N)EQUIPMENT?
S3	4	FUSION?(3N)CONSUMABLE
S4	216967	(COMPUTERI? OR AUTOMATE? OR ELECTRONIC?) (5N) (MONITOR? OR A- SSESS? OR TRACK? OR DETECT?)
S5	529	AU=(BLANKENSHIP, G? OR BLANDENSHIP G? OR HSU, C? OR HSU C?)
S6	1	S1(S)S4
S7	33	(S2 OR S3) (S)S4
S8	32	S7 NOT S6
S9	22	S8 NOT PY>2001
S10	19	RD (unique items)
S11	0	S5(S)S1
S12	529	AU=(BLANKENSHIP, G? OR BLANKENSHIP G? OR HSU, C? OR HSU C?)
S13	0	S12(S)S1

6/3,K/1 (Item 1 from file: 160)
DIALOG(R)File 160:Gale Group PROMT(R)
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01793363

Joint ventures

Engineer September 3, 1987 p. 58,61
ISSN: 0013-7758

...the Inst and similar organizations. Esab (Sweden), a company that is the leader in supplying **welding consumables** and **welding** equipment to the UK, has publicly blasted its UK customers for failing to use new...

... the developments at the Welding Center, including Babcock, which will soon take delivery of an **automated** seam **tracker** developed at the Inst. The future looks bright for the Inst, which recently received a...

10/3,K/1 (Item 1 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
(c) 2005 The Gale Group. All rts. reserv.

07592632 Supplier Number: 63565224 (USE FORMAT 7 FOR FULLTEXT)
24th Annual Source Guide. (Brief Article)
Automotive Industries, v180, n6, p107
June, 2000
Language: English Record Type: Fulltext
Article Type: Brief Article
Document Type: Magazine/Journal; Trade
Word Count: 114703

... Board Radar
Systems, Printed Circuit Boards, Relays & Regulators,
Solenoids, Switches, Fuses, & Circuit Breakers

AROMAT CORE, **ELECTRONIC** COMPONENT DIV.
629 Central Ave.
New Providence, NJ 07974
Karen Stanley, V.P. of Sales...Commercial Manager - N.A.
Assembly Systems, Connectors, Conveyors, Cranes,
Hoists, Machine Tools, Material Handling Equipt, **Welding**
Equipment

CRS REGISTRARS INC.
5515 Southwyck Blvd., Sts. 205
Toledo, OH 43614
Tom Springstead, Autom. Indust...

10/3,K/2 (Item 2 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
(c) 2005 The Gale Group. All rts. reserv.

07054045 Supplier Number: 58435645 (USE FORMAT 7 FOR FULLTEXT)
Welding manufacturer smashes China.
Welding Review International, v16, n3, p4
August, 1997
Language: English Record Type: Fulltext
Document Type: Magazine/Journal; Trade
Word Count: 76

(USE FORMAT 7 FOR FULLTEXT)
TEXT:
Resistance **welding equipment** manufacturer, British Federal, has opened
a sales office in Beijing to further sales of its **equipment** and
electronic weld control and **monitoring** systems to the automotive, drum
packaging and aerospace industries.-

10/3,K/3 (Item 3 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
(c) 2005 The Gale Group. All rts. reserv.

03161502 Supplier Number: 44318967
Import, Export Trends
Japan Electronics Almanac, p207
Annual, 1994
Language: English Record Type: Abstract

Document Type: Magazine/Journal; Trade

ABSTRACT:

...and imports. The leading export products among non-medical electronics equipment consisted of diffraction equipment, **electronic** microscopes, and ultrasonic fish **detectors**. Imports primarily included ultrasonic **welding equipment**, electronic microscopes, and radiation equipment.

...

10/3,K/4 (Item 4 from file: 16)

DIALOG(R)File 16:Gale Group PROMT(R)

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03161487 Supplier Number: 44318952

ELECTRONICS-APPLIED EQUIPMENT: Import, Export Trends

Japan Electronics Almanac, p207

Annual, 1994

Language: English Record Type: Abstract

Document Type: Magazine/Journal; Trade

ABSTRACT:

...exports and 88.4% in its total imports. Major imported products include electronic microscopes, ultrasonic **welding** and radiation **equipment**. Its chief exported non-medical products include **electronic** microscopes, ultrasonic fish **detectors** and diffraction equipment.

10/3,K/5 (Item 5 from file: 16)

DIALOG(R)File 16:Gale Group PROMT(R)

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02833047 Supplier Number: 43809579 (USE FORMAT 7 FOR FULLTEXT)

Advanced technology a means to an end at Migatronix

Welding Review International, p53

May, 1993

Language: English Record Type: Fulltext

Document Type: Magazine/Journal; Trade

Word Count: 2221

... cutting processes are manufactured at the plant. In addition to these it builds tractors, turntables, **welders** ' lathes, fume extraction **equipment** and arc **monitoring** and other **electronic** QC welding ancillaries.

The company's current flagship power source for the shipbuilding industry is...

10/3,K/6 (Item 6 from file: 16)

DIALOG(R)File 16:Gale Group PROMT(R)

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01152540 Supplier Number: 41309409 (USE FORMAT 7 FOR FULLTEXT)

Richard Lind,

Metal Center News, p74

May, 1990

Language: English Record Type: Fulltext

Document Type: Magazine/Journal; Trade

Word Count: 349

... through innovative production methods. Bull Moose has introduced computer-integrated manufacturing (CIM), which is an **automated** system allowing us to **monitor**, record, and track tolerances and inventory on the shop floor. CIM has created a paperless...

...being implemented in 1990-91. Major capital expenditures, including automatic packaging tables, new mill-entry **equipment**, and **welder** upgrades are under way at Bull Moose to ensure our role as a dependable, flexible...

10/3,K/7 (Item 1 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2005 The Gale Group. All rts. reserv.

12897997 SUPPLIER NUMBER: 67682585 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Tube spotting. (Brief Article)
Metalworking Production, 144, 13, 68
Nov, 2000
DOCUMENT TYPE: Brief Article ISSN: 0026-1033 LANGUAGE: English
RECORD TYPE: Fulltext
WORD COUNT: 189 LINE COUNT: 00018

TEXT:

...production lines at the Sosta stainless steel pipemaking factory in Berlin are monitored by automated **weld** positioning **equipment** from Meta Vision Systems. Based on non-contact laser seam tracking the equipment has reduced...

10/3,K/8 (Item 2 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2005 The Gale Group. All rts. reserv.

10309781 SUPPLIER NUMBER: 20846029 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Automotive Industries 23rd annual source guide. (1998 Source Guide) (Buyers Guide)
Automotive Industries, v178, n6, p93(24)
June, 1998
DOCUMENT TYPE: Buyers Guide ISSN: 0273-656X LANGUAGE: English
RECORD TYPE: Fulltext; Abstract
WORD COUNT: 32740 LINE COUNT: 08498

... Group
Wells Mfg. Corporation
SOLENOIDS
Aisin World Corporation of America, Detroit
Office
American Electronic Components, Inc .
AMTEC Precision Products Inc.
Applied Power Inc., Apitech/Power-Packer Eng.
Solutions NA
Applied Power...www.lasag.com
Welding Equipment
LASER MACHINING, INC.
500 Laser Dr.
Somerset, WI 54025
David **Henning**, Sales
715-247-3285
Toll free: 800-77-LASER

Fax: 715-247-5650
E-mail: sales...

...www.lasermachining.com
Welding Equipment, Contract Manufacturing &
Assembly, Engineering Design & Prototyping,
Development & Testing
LDM TECHNOLOGIES, INC .
2500 Executive Hills Dr.
Auburn Hills, MI 48326
Bill Kessler, Sr. V.P. New Bus. Dev...

10/3,K/9 (Item 3 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2005 The Gale Group. All rts. reserv.

08124425 SUPPLIER NUMBER: 17389671 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Plastics technology: manufacturing handbook & buyers' guide 1995/96. (Buyers Guide)
Plastics Technology, v41, n8, pCOV(941)
August, 1995
DOCUMENT TYPE: Buyers Guide ISSN: 0032-1257 LANGUAGE: English
RECORD TYPE: Fulltext
WORD COUNT: 174436 LINE COUNT: 15187

... style, nozzle-type and compression-fitting versions for attachment to injection and extrusion machines.

ADVANTAGE ELECTRONICS, INC.

Custom temperature monitoring and control instruments with custom packaging, control sequencing, and data-communication capability.

AGEMA INFRARED SYSTEMS...

10/3,K/10 (Item 4 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2005 The Gale Group. All rts. reserv.

07901136 SUPPLIER NUMBER: 16914645 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Change requires a leap of faith. Technological change demands a quantum leap. (challenges in automating warehousing operations)
Andel, Tom
Transportation & Distribution, v36, n5, p112(1)
May, 1995
ISSN: 0895-8548 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT; ABSTRACT
WORD COUNT: 698 LINE COUNT: 00057

... equipment manufacturer to replace 36 warehouses with six distribution centers--with the help of a computerized inventory tracking system and automatic identification. Corporate headquarters had failed in previous commitments they had made, so...

10/3,K/11 (Item 5 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2005 The Gale Group. All rts. reserv.

06496123 SUPPLIER NUMBER: 14107736 (USE FORMAT 7 OR 9 FOR FULL TEXT)
WIC maintains commitment to research. (What's New in Welding)
Killing, Andy

Ashley, Steven

American Metal Market, v91, p10(1)

June 27, 1983

ISSN: 0002-9998

LANGUAGE: ENGLISH

RECORD TYPE: FULLTEXT

WORD COUNT: 1231

LINE COUNT: 00096

... movements of robots and parts positioners, arc welding process equipment, adaptive through-the-arc seam **tracking** apparatus, **automated** tooling and the link of the host computer.

In a related development, Cybotech "is ending...

10/3,K/15 (Item 1 from file: 160)

DIALOG(R)File 160:Gale Group PROMT(R)

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01915135

What electronics are doing for welding

American Machinist & Automated Manufacturing March, 1988 p. 66-71

ISSN: 0886-0335

... programmable mechanical seam tracker; and Ferranti/Sciaky's TouchWeld Plus. The use of electronics for **welding equipment** is discussed and equipment from various vendors, eg, SI Intl's new tube welding control...

... Miller Electric's advanced pulsed-arc welding control, is detailed. The advantages of real-time **electronic monitoring** of the welding process is also discussed. Electronically controlled plasma-arc cutting and the mechanics...

10/3,K/16 (Item 2 from file: 160)

DIALOG(R)File 160:Gale Group PROMT(R)

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01105467

Tech Update: GM pioneers solid modeling system for programming off-line robots.

AMERICAN METAL MARKET November 12, 1984 p. 91

... by spring-1985, to program robots for parts assembly cells. The cells use automatic clinching, **welding** or mechanical fastening **equipment** to produce body panels, trim panels and other sheet metal components or subassemblies. The RoboTeach...

... engineers with a good visualization of a robot work cell and can aid in collision **detection** and **automated** planning for the whole production process.

10/3,K/17 (Item 1 from file: 15)

DIALOG(R)File 15:ABI/Inform(R)

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00856121 95-05513

Good specs = low costs

Deierlein, Bob

Fleet Equipment v20n4 PP: 34-37 Apr 1994

ISSN: 0747-2544 JRNL CODE: FEQ

Sylvia Keys

25-Aug-05 09:56 AM

WORD COUNT: 1094

...ABSTRACT: Flesher, general manager-fleet maintenance for AGA Gas, a leading manufacturer of industrial gases and **welding equipment**, decided to find a better way to make his department more efficient. As the head...

...spec a passenger seat. Flesher is also one of the most vocal proponents of a **computerized** equipment management cost system to **track** such things as vehicle performance, fuel records, tire management, and warranty recoveries. ...

10/3,K/18 (Item 1 from file: 95)
DIALOG(R)File 95:TEME-Technology & Management
(c) 2005 FIZ TECHNIK. All rts. reserv.

00675316 M93038444601

Welding management apparatus

(Steuerungsgeraet zum Schweissen)

Ishizaka, Y

K.K. Meidensha, Tokyo, J

1992

Document type: European patent application Language: English

Record type: Abstract

DESCRIPTORS: DIELECTRIC WELDING; OPTOELECTRONIC SENSORS; METAL STRIP;
PRINTERS; COORDINATE PLOTTERS; HIGH FREQUENCY ENGINEERING; PROCESS
AUTOMATION; PROCESS **MONITORING** ; OPTOELECTRONICS; **WELDING** ; **ELECTRONICS**
; **WELDING EQUIPMENT** ; **PROCESS C ONTROL**; AUTOMATISATION

10/3,K/19 (Item 1 from file: 635)
DIALOG(R)File 635:Business Dateline(R)
(c) 2005 ProQuest Info&Learning. All rts. reserv.

0754644 97-13171

Oil service workers go high-tech

Ragsdale, Rose

Alaska Journal of Commerce (Anchorage, AK, US), V20 N45 p10

PUBL DATE: 961104

WORD COUNT: 869

DATELINE: Anchorage, AK, US, Pacific

TEXT:

...notices and other documents with the computers, they say.

Parker Drilling also is installing an **automated** instrumentation system that **monitors** changes in the well bore and helps the drillers make adjustments as needed and prevent...

...Graff said he is investigating interactive CD-ROM software to assist with the training of **welders**, mechanics, electricians, **equipment** operators and all workers in safety requirements.

"With these programs, the trainee can go at...
?

Canadian Machinery and Metalworking, v88, n3, pS1(1)
April, 1993

ISSN: 0008-4379 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT
WORD COUNT: 694 LINE COUNT: 00055

... dc resistance welding machines, as well as a tip-life testing system and electronic monitoring **equipment** .

Weldability : The WIC Arc Physics Lab has completed its first major assignment: determining the effect of...

10/3,K/12 (Item 6 from file: 148)

DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2005 The Gale Group. All rts. reserv.

06219806 SUPPLIER NUMBER: 13277508 (USE FORMAT 7 OR 9 FOR FULL TEXT)

U.S. mergers and acquisitions. (The M&A Rosters: First Quarter 1992)

Mergers & Acquisitions, 27, n1, 65(69)

July-August, 1992

ISSN: 0026-0010 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT

WORD COUNT: 79730 LINE COUNT: 07395

... and processing equipment, welding guns and accessories, automatic screw machines, realignment systems, equipment for assembling **electronic** equipment, and manual **tracking** controls. Dover Industries is a unit of Dover. A-C Compressor, majority owned by Stonebridge...

10/3,K/13 (Item 7 from file: 148)

DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2005 The Gale Group. All rts. reserv.

05417597 SUPPLIER NUMBER: 11077230 (USE FORMAT 7 OR 9 FOR FULL TEXT)

Energy environment report; buyers' guide: Canada's comprehensive directory 1991. (directory)

Oilweek, v42, n22, pS1(24)

July 15, 1991

DOCUMENT TYPE: directory ISSN: 0030-1515 LANGUAGE: ENGLISH

RECORD TYPE: FULLTEXT

WORD COUNT: 15697 LINE COUNT: 01435

... Safety & Environmental

Services Ltd. Teledyne Analytical TSL Environmental Labs Western Research

Gas Blanketing

Bow Valley **Welding** Supplies

Gas **Detection** Equipment

AGS Environmental & Safety Airwave **Electronics** Ltd. Cantech Corporation Can-Am Instruments Ltd. Capital Controls Co., Inc. Custom Environmental Services Ltd...

10/3,K/14 (Item 8 from file: 148)

DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2005 The Gale Group. All rts. reserv.

01749052 SUPPLIER NUMBER: 02818322 (USE FORMAT 7 OR 9 FOR FULL TEXT)

Cybotech targets aerospace for robot applications.